Reaction Products Worksheet

For each of the following reactions, determine what the products of each reaction will be. When you have predicted the products, balance the equation and use a table of solubility products to determine which of the products (if any) will precipitate. Assume all reactions take place in water.

2) ____ Pb(NO₃)₂ + ____ K₂CrO₄
$$\rightarrow$$

3)
$$\underline{\hspace{1cm}} NaC_2H_3O_2 + \underline{\hspace{1cm}} H_2SO_4 \rightarrow$$

4) ____ Cu(OH)₂ + ____ H₃PO₄
$$\rightarrow$$

5)
$$AgNO_3 + \underline{\hspace{1cm}} Na_2CO_3 \rightarrow$$

6)
$$\underline{\hspace{1cm}}$$
 Zn + $\underline{\hspace{1cm}}$ H₂CO₃ \rightarrow

7) Pb(OH)₂ + ____ Hg₂S
$$\rightarrow$$

Reaction Products Worksheet - Key

For each of the following reactions, determine what the products of each reaction will be. When you have predicted the products, balance the equation and use a table of solubility products to determine which of the products (if any) will precipitate. Assume all reactions take place in water.

- 1) $\underline{1}$ Ca(OH)₂ + $\underline{2}$ HF \rightarrow 2 H₂O + CaF₂ (CaF₂ precipitates)
- 2) $\underline{1} \text{ Pb(NO}_3)_2 + \underline{1} \text{ K}_2 \text{CrO}_4 \rightarrow 2 \text{ KNO}_3 + \text{PbCrO}_4 \text{ (PbCrO}_4 \text{ precipitates)}$
- 3) $\underline{2} \text{ NaC}_2\text{H}_3\text{O}_2 + \underline{1} \text{ H}_2\text{SO}_4 \rightarrow \text{Na}_2\text{SO}_4 + 2 \text{ CH}_3\text{COOH} \text{ (no precipitate)}$
- 4) <u>3</u> Cu(OH)₂ + <u>2</u> H₃PO₄ → 6 H₂O + Cu₃(PO₄)₂

 copper (II) phosphate precipitates
- 5) $\underline{2} \text{ AgNO}_3 + \underline{1} \text{ Na}_2 \text{CO}_3 \rightarrow \text{Ag}_2 \text{CO}_3 + 2 \text{ NaNO}_3 \text{ (Ag}_2 \text{CO}_3 \text{ precipitates)}$
- 6) $\underline{1} \text{ Zn} + \underline{2} \text{ H}_2\text{CO}_3 \rightarrow \text{ZnCO}_3 + \text{H}_2 \quad (\text{ZnCO}_3 \text{ precipitates})$
- 7) $Pb(OH)_2 + Hg_2S \rightarrow$ no reaction; neither reagent is soluble in water